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VERIFICATION OF TB COMMODITIES (EQUIPMENT AND REAGENTS)

DELIVER PROJECT

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VERIFICATION OF TB COMMODITIES (EQUIPMENT AND REAGENTS)

DELIVER PROJECT

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Monitoring and Evaluation Program (MEP)

DISCLAIMER

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CONTENTS

EXECUTIVE SUMMARY	1
INTRODUCTION.....	3
INTERVENTION OVERVIEW.....	5
MONITORING DESIGN AND METHODOLOGY.....	7
FINDINGS.....	12
CONCLUSIONS	22
RECOMMENDATIONS.....	23
LESSONS LEARNED FOR MONITORING	24
ANNEXES.....	25
Annex 1: List of Persons Interviewed	25
Annex 2: Instrument	26
Annex 3: Task Order Plan.....	42
Annex 4: Pictures of TB Commodities	49
Annex 5: Commodity Quantities Verified at the Districts Warehouses	53

Tables and Figures

Table 1: TB Commodities and Chemicals Specifications.....	5
Table 2: Proposed Sample for Field Visits.....	7
Table 3: Total – Site Visits Conducted.....	8
Table 4: Commodity Quantities Verified at the NTP Warehouse.....	13
Table 5: Stock Verification at NTP Warehouse.....	14
Table 6: Detailed Data on Verification of Items at the Provincial and Regional Warehouses	15
Table 7: Recordkeeping at NTP and Provincial Warehouses.....	18
Table 8: Recordkeeping at the District Health/TB Control Programs.....	19
Table 9: Branding Observed on Packaging at NTP, Provincial/Regional Warehouses.....	20
Table 10: Branding Observed on Packaging at District Health Offices/TB Control Program Offices	20
Figure 1: Commodity Distribution Process.....	6
Figure 2: Map of Sites	9
Figure 3: Standards for Recordkeeping.....	17

ACRONYMS

AJK	Azad Jammu and Kashmir
BMC	Bolan Medical Complex
CPIR	Commodity Procurement Information Request
DHO	District Health Office
GDN	Goods Delivery Note
GAFTM	The Global Fund to Fight Aids, Tuberculosis and Malaria
GRN	Goods Receiving Note
GOP	Government of Pakistan
HCL	Hydrochloric Acid
JSI	John Snow, Inc.
KPK	Khyber Pakhtunkhwa
LED	Light Emitting Diode
LMIS	Logistics Management Information System
MSI	Management Systems International
MEP	Monitoring and Evaluation Program
NTP	National Tuberculosis Control Program
TOP	Task Order Plan
TB	Tuberculosis
UPM	United Professional Movers

EXECUTIVE SUMMARY

USAID/Pakistan's DELIVER Project, implemented by John Snow, Inc. (JSI), supplied tuberculosis (TB) commodities (equipment and reagents) to the National Tuberculosis Control Program (NTP) as a one-time procurement by the DELIVER project. The commodities were received in July and August 2012 at the NTP warehouse in Islamabad.

USAID/Pakistan tasked the Monitoring and Evaluation Program (MEP) to verify the delivery of TB commodities under the DELIVER project as part of a monitoring assignment conducted in April - June 2013. MEP staff visited the NTP warehouse in Islamabad, four provincial warehouses (Punjab, Sindh, Khyber Pakhtunkhwa (KPK) and Balochistan), and two regional warehouses (Gilgit-Baltistan and Azad Jammu and Kashmir (AJK)). In addition, 16 district health/TB control program offices were monitored.

The monitoring exercise was conducted at two levels to: 1) verify commodity quantities as per the distribution plan; and 2) substantiate recordkeeping and documentation to determine if the commodities had been stored, used, further distributed, or otherwise not available in the store for a physical count.

Data was collected using four different methods to triangulate information and enhance reliability. The methods included photographs, observations, interviews with staff members at the provincial warehouses and district health/TB Control Program offices, and verification of records. Standards for recordkeeping and documentation are shown in Figure 3. Collected data was compared with records for verification and validation. The monitoring assignment verified the delivery of eight items including light emitting diode (LED) microscopes, glass slides, sputum cups, Auramin, Ethanol, Methylene Blue, Hydrochloric acid, and Phenol.

The key findings from this monitoring assignment are as follows:

- At the NTP warehouse, of the eight commodities procured, seven were received as planned. The only commodity that showed a discrepancy in the quantities received was glass slides. All commodities were accounted for at the provincial warehouse for Sindh, and the regional warehouse for AJK. A few discrepancies were observed in commodities that were received but not accounted for during the physical verification at the provincial warehouse in Punjab (835 bottles of ethanol), Balochistan (17,000 sputum cups), and at the regional warehouse of Gilgit-Baltistan (8,000 sputum cups).
- Of the 16 district health/TB control program offices, from where the commodities were distributed to the TB laboratories, all commodities were verified at 11 sites. At five sites where monitoring was conducted, the commodities could not be verified due to poor recordkeeping and unavailability of store staff.
- Recordkeeping at the NTP warehouse was well-organized and complete. Of the six provincial and regional warehouses, five had full documentation available and recordkeeping was up to date.
- At the 16 district health offices where commodities were kept before being dispatched to the laboratories, recordkeeping was complete at nine locations, partially complete at one location, and six offices had not maintained any records.
- DELIVER is not required to brand commodities except on the outer packaging of the shipping boxes. The MEP monitoring team was unable to determine if the commodities were properly branded at the NTP and the provincial and regional warehouses since all of the outer packaging was

already opened and the commodities were unpacked. However, the team was told by the NTB and the storekeeper at AJK that the boxes received were marked with the USAID logo.

- The lab-technicians at the district laboratories are still awaiting training on the use of the LED microscopes. Hence, this commodity is currently not in use, along with the related five chemical reagents – Auramin, Ethanol, Hydrochloric acid, Phenol, and Methylene Blue.

INTRODUCTION

Through the USAID DELIVER Project, USAID/Pakistan purchased eight tuberculosis (TB) commodities (equipment and reagents) for the Government of Pakistan's (GOP's) National TB Control Program: LED microscopes, sputum cups, glass slides, Auramin, Ethanol, Hydrochloric acid (HCL), Phenol, and Methylene Blue.

The Monitoring and Evaluation Program (MEP) was tasked with verifying the delivery of these eight USAID-procured TB commodities at the National Tuberculosis Control Program (NTP) warehouse in Islamabad, and their distribution from the NTP warehouse to provincial and regional warehouses, as well as a sub-set of district health/TB control program offices. DELIVER is responsible for the purchase of the commodities and their delivery to the provincial and regional warehouses. The National TB Program is responsible for the distribution and delivery of the items from the provincial and regional warehouses to the end-users. The verification assignment covered all aspects of the distribution chain including delivery, storage, and distribution of the commodities.

Project Background

The USAID-funded Health Supplies Distribution Project, known as the USAID DELIVER Project, began operations in Pakistan in August 2009. The project is focused on improving and enhancing the Government of Pakistan's in-country distribution and health commodity supply chains. Implemented by John Snow, Inc. (JSI), DELIVER aims to help the Ministry of National Health Services, Regulation, and Coordination at the federal level; the provincial and regional health departments and population welfare as well as non-governmental organizations to strengthen their contraceptive supply chain management practices. This includes contraceptive commodity security, procurement capacity, and the strengthening of a modern storage and tracking system to improve the distribution system throughout the country. This activity makes up component four of the USAID Maternal and Child Health Program.

DELIVER provides extensive technical support to the GOP in the areas of contraceptive forecasting, procurement planning, warehouse management, supply chain strengthening, and the automation of warehouse and logistics management information systems.

The overall project goals are to:

- a) Improve central warehouse and supply operations;
- b) Improve procurement capacity and contraceptive supplies;
- c) Establish the logistics management information system (LMIS);
- d) Provide for contraceptive commodity security;
- e) Strengthen procurement, supplies and distribution systems and policy; and
- f) Build the institutional capacity and enhance means of quality assurance.

By working closely with the GOP, the project also aims to ensure multi-level coordination on the delivery of health commodities, including the delivery of USAID-supported TB commodities and equipment as a one-time procurement under Task Order 5.

As such, DELIVER was responsible for procuring and delivering the items to the NTP warehouse and then deconsolidating, repackaging, and delivering the commodities and equipment to the provincial and regional warehouses. Once the items were received at the provincial and regional warehouses, it was the responsibility

of the GOP and its provincial health departments to continue the supply chain distribution to the district health offices and laboratories.

Purpose of the Assignment

The purpose of this monitoring assignment, as articulated by USAID/Pakistan's Health Office, is to verify that the TB commodities (equipment and reagents) purchased with United States Government funding have reached the intended destinations, including the NTP warehouse in Islamabad, provincial and regional warehouses and a sample of district health/TB control program offices.

Assignment Overview

MEP was tasked with monitoring TB equipment and commodities procured by DELIVER and verifying the receipt of items at various stages in the supply chain, whether it fell within the purview of DELIVER (central and regional/provincial warehouses) or the GOP (district and beyond). USAID/Pakistan, through DELIVER, provided the equipment and commodities to the NTP warehouse. From the NTP, the GOP distributed these commodities to provincial and regional warehouses which in turn distributed the items to district-level sites. Work on this assignment began in January 2013, when MEP held initial meetings with the USAID/Pakistan Health Office and the DELIVER team. In March 2013, the monitoring team began collecting documents and additional information pertinent to the assignment, conducting initial site visits, and designing and pretesting instruments. After agreement on the specifics of this task, fieldwork began in April 2013.

Due to a delay in the shipment of some of the TB-related commodities, MEP focused its verification efforts on eight out of 21 items delivered. The eight commodities verified by MEP are: LED microscopes, glass slides, sputum cups, Auramin, Ethanol, Methylene Blue, HCL, and Phenol.

To account for the delay in the shipment, a modified scope of work and monitoring schedule were agreed upon for this monitoring assignment. Data was collected over an eight-week period from March 24, 2013 to June 24 2013. MEP presented the initial findings to USAID/Pakistan during a mid-term debrief on May 14, 2013. The draft report was submitted in early August 2013.

INTERVENTION OVERVIEW

Under the DELIVER project, TB commodities were supplied to the National TB Control Program as a one-time procurement by the DELIVER project. Overall, the project's interventions regarding TB focused on two key objectives: 1) improving the performance of the health system by addressing weak supply management systems, and 2) improving the availability of drugs, laboratory supplies, and chemicals in the public sector.

These objectives are being achieved by working in partnership with the relevant government departments to eradicate TB through an improved logistics management information system (LMIS), warehouse rehabilitation, commodity security, procurement capacity, and other related support activities. There is a corresponding capacity building component under The Global Fund to Fight Aids, Tuberculosis, and Malaria (GAFTM) to provide training in the use of the LED microscopes in coordination with the NTP. At the time of the field visit, these trainings had not been conducted although the distribution of the LED microscopes from the provincial level to the districts was complete, except for Sindh.

Commodity Types and Specifications

Eight types of commodities and equipment were procured by DELIVER for the National TB Control Program. Equipment consisted of LED microscopes, glass slide packets, and sputum cups. The remaining five commodities consisted of chemicals and reagents. The specifications are shown in Table 3.

TABLE 1: TB COMMODITIES AND CHEMICALS SPECIFICATIONS

Item	Quantity	Description
LED Microscopes		It is used for live cell examinations
Glass slide packets	50 slides per package	It is a thin flat piece of glass, used to hold objects for examination under a microscope
Sputum cup		It is a specimen cup
Auramin 100 g	100 g per package	Yellow colored dye
Ethanol 1,000 ml	1,000 ml per bottle	Alcohol
HCL 1,000 ml	1,000 ml per bottle	Hydrochloric Acid
Phenol 1,000 g	1,000 g per bottle	Carbolic Acid
Methylene Blue 100 g	100 g per bottle	Dye-histological stain

Commodity Distribution Process

TB goods and supplies reached Pakistan in July and August 2012. The supplies were delivered to the NTP warehouse in Islamabad by United Professional Movers (UPM) hired by DELIVER. DELIVER and UPM were also responsible for deconsolidating, repackaging, and delivering the commodities to four provincial and two regional warehouses. Once the commodities arrived at the respective provincial and regional warehouses, delivery to the next level was done as described below.

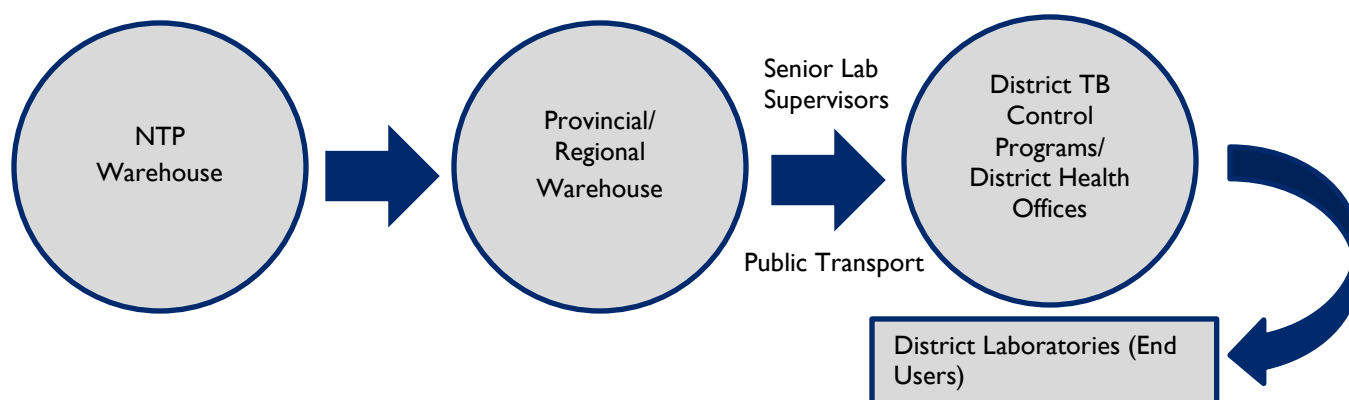
- From the provincial and regional warehouses, the delivery of commodities to district level sites is the responsibility of the GOP. The district TB control offices that fall under the auspices of the district health offices generate demand for the commodities on a quarterly basis. Based on their

demand, senior laboratory supervisors at the provincial and regional warehouses or the national program officers in Islamabad transport the commodities to the respective districts per their visit schedule, or send the commodities through public transport. This demand from the districts is of an informal nature, and is not backed by any official documentation.

- From the district health offices or TB Control Program offices, the commodities are provided to specialized laboratories. These laboratories are the end users for the USAID-procured TB supplies.

This commodity distribution process is illustrated below in Figure 1.

FIGURE 1: COMMODITY DISTRIBUTION PROCESS



MONITORING DESIGN AND METHODOLOGY

This section provides details on the formulation of the assignment, the monitoring plan, the sample, and the process for data collection, processing, and analysis.

Preparation for Fieldwork

At the outset, MEP scheduled meetings with DELIVER staff and USAID/Pakistan's Health Office to review the assignment, discuss the distribution process, and obtain additional information regarding the delivery of supplies and commodities. MEP also obtained a letter of introduction from the DELIVER Country Director addressed to the Director Generals and Directorates of Health Services at the federal, provincial, and regional levels of the GOP, which was circulated by DELIVER to the different provinces and regions. The letter was used to facilitate field visits, meetings with the relevant personnel at each location, and the use of a monitoring tool to verify the delivery of the TB commodities. The final data collection instrument is attached as Annex 2.

Sampling Plan

It was initially agreed that the MEP monitoring team would visit a total of 51 sites as part of the assignment. The sites included the NTP warehouse in Islamabad, four provincial warehouses in Punjab, Sindh, Khyber Pakhtunkhwa (KPK) and Balochistan), two regional warehouses in Gilgit-Baltistan and Azad Jammu and Kashmir (AJK), 17 district-level sites in Sindh, and 27 sites in other parts of Pakistan. Table 1 shows the proposed sample size for site visits.

TABLE 2: PROPOSED SAMPLE FOR FIELD VISITS

	Central Warehouse	Provincial Warehouses	Regional Warehouses	District Level Sites	Cumulative Total
	NTP, Islamabad	Balochistan, KPK, Punjab, and Sindh	Gilgit-Baltistan and AJK	Sindh (17) Other Provinces and Regions (27)	
Total	1	4	2	44	51

Once the monitoring assignment was underway, MEP sought guidance from USAID/Pakistan's Health Office as the team uncovered delays in the distribution of the commodities from some of the provincial and regional warehouses to the district-level sites. In addition, MEP monitoring staff had to make schedule adjustments to compensate for the 2013 election, polio vaccination days, and the unavailability of staff at some of the sites. USAID/Pakistan agreed to reduce the sample size from 51 to 23 sites to complete the assignment by July 15.¹ MEP monitoring staff conducted the site visits, including verification at the seven sites that fell under the purview of DELIVER and the 16 district health/TB control program offices. Table 2 presents the number of site visits made.

¹ As per an email dated June 21, 2013 from the USAID Health office in which USAID recommended that in order to complete the assignment within a manageable time frame, MSI finish the assignment by July 15, 2013

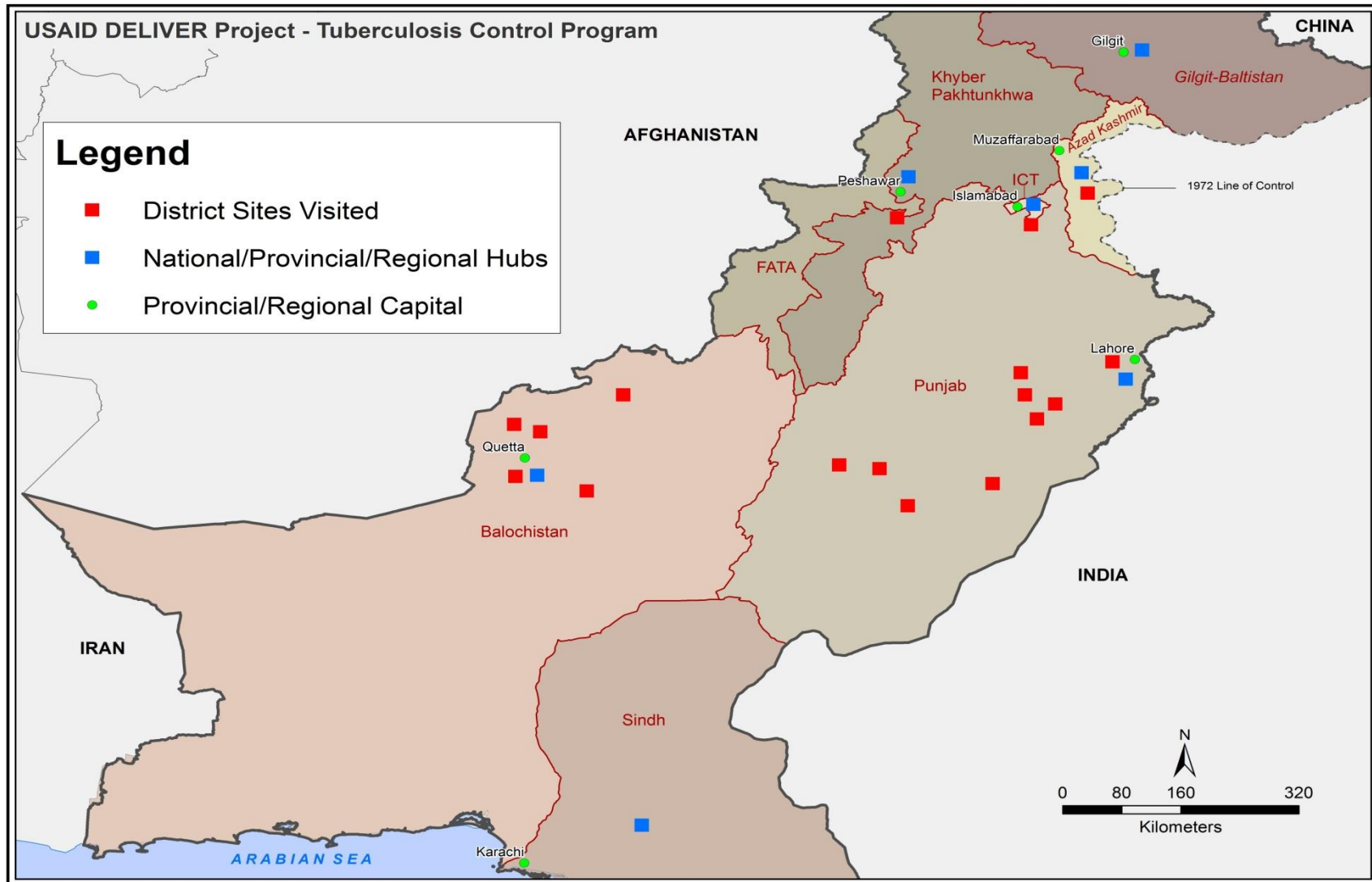
TABLE 3: TOTAL – SITE VISITS CONDUCTED

	Central Warehouse	Provincial Warehouses	Regional Warehouses	District Health/TB Control Program Offices	Cumulative Total
	NTP, Islamabad	Balochistan, Khyber Pakhtunkhwa, Punjab, and Sindh	Gilgit-Baltistan and AJK	Punjab (10) AJK (1) Balochistan (5)	
Total	1	4	2	16	23

Visits to the district health/TB control program offices were determined by provincial level distribution plans provided by the respective provincial and regional warehouses. Using this information, MEP applied the technique of random sampling to identify the district level sites to be visited for verification.

The 23 sites that were visited during the monitoring assignment are plotted on the map on the following page.

FIGURE 2: MAP OF SITES



Data Collection Methods

Four different methods were used to collect data in the field.

1. **Interviews:** Key informant interviews using a semi-structured questionnaire were conducted with the persons responsible for record keeping, storage, or usage of the equipment and reagents. Interviews were scheduled and confirmed before the site visit (Annex 1 provides the list of persons interviewed).
2. **Record Verification:** MEP monitoring staff visited the sites to verify records for delivery receipts (goods delivery note or proof of delivery), stock records, and delivery transactions (goods receiving notes). All documentation pertaining to the supply chain for each site was photographed.
3. **Observation:** This included the physical inspection of the commodities. Observation in conjunction with reviewing records/documentation helped to identify missing commodities and/or discrepancies in quantities. Observation not only included a physical count of the commodities at the stores, but also verification of USAID branding and the condition and level of use of the commodities/equipment supplied.
4. **Photographic evidence:** As no photocopying services were available at the sites visited, MEP monitors photographed the relevant records and documents. In addition, the MEP monitoring team photographed packaging, branding, and item specifications for its record and reference. These data collection methods were used to triangulate information and enhance data reliability. Data collected were verified against records supplied by DELIVER to check if they matched, and this was checked against initial tables generated from the MEP database in which the field data was collected for qualitative analysis.

Instrument Design and Testing

The initial instrument was designed based on documentation received from DELIVER. It was updated based on a pre-test conducted at a TB care facility in Kohat. Minor changes were made to the instrument after the pre-test, and the revised instrument was shared with USAID/Pakistan on March 23, 2013. The instrument included an introduction, instructions for each section, and prompts for skipping questions as needed. The guidelines for each question included notes to assist the field monitors as they went through the questionnaire (the data collection instrument can be found in Annex 2).

MEP monitors were required to substantiate all of their observations related to recordkeeping and stocks with supporting documentation and photographs. In cases where copies of the required documentation were not available, monitors took photographs of the supporting records.

The instrument was administered in English, and was used at all 23 locations visited. Individual interviews were conducted in Urdu and/or English. Responses were recorded in English.

Database and Analysis

The field data was recorded on paper. For the purpose of data analysis, base tables were created in MS Excel, and populated with the data from the instrument. The data was tabulated and analyzed for the sites visited and focused on the three areas listed below.

1. **Quantity Verification:** Monitors checked for discrepancies at the NTP warehouse, as well as the provincial, regional, and district hubs. This was done by matching the total quantity received at each site against the aggregate of total stock delivered on to the next level and the total undelivered quantity at the store.

2. **Branding:** Compliance with USAID branding requirements was checked at every site. The MEP monitors looked at the packaging on the outer shipping boxes and the individual unwrapped and wrapped equipment and supplies. USAID later communicated to MEP that verification of branding of the items was not critical to this assignment.
3. **Review of Documentation and Recordkeeping:** Monitors reviewed documentation and recordkeeping at every site visited. Review of documentation and recordkeeping was essential to data analysis.

Hard copies of the instruments, supporting documentation, and photographs are on file at the MEP office.

Data Quality Limitations

The data collection was subject to a few limitations.

1. Since the TB commodities arrived in Pakistan in July and August 2012, and the monitoring exercise commenced in April 2013, MEP expected that some of the commodities would not be available at the warehouses for verification as they may have been sent to the next level in the delivery chain. However, in some cases, commodities were still in the provincial and regional stores, as delivery to the district was contingent on the staff being trained on the use of the LED microscopes. This was the case in Sindh.
2. In Balochistan and Gilgit-Baltistan, DELIVER-procured commodities were not physically verified. The store managers could not identify DELIVER-procured commodities from commodities procured through other means (donors) in the store. At some sites at the district level, the lack of complete records substantially limited record review and verification.
3. In several provinces and regions, commodities were not delivered to the district level sites, and are still stored at warehouses.

FINDINGS

The MEP monitoring team shared initial findings with USAID/Pakistan at a mid-term debrief on May 14, 2013. A detailed summary of findings is presented below. Observations are made at three levels: 1) the central warehouse; 2) the provincial and regional warehouses; and 3) the district level. The categorization of the findings follows the format of the monitoring tool.

DELIVER provided MEP with a distribution plan for the four provincial and two regional warehouses. The distribution plan was the main source of information used to conduct the verification assignment. Shipping receipts were also provided by DELIVER, however they served as supplementary information. In the field, the commodities received were verified by examining the goods received notes, stock registers, and goods delivery notes. MEP monitoring staff reviewed these records and determined outstanding stock balances for each commodity. The outstanding stock balances were physically verified at the stores. Compliance with USAID branding requirements was observed where the commodities were available.

Verification of Commodity Quantities

Central Warehouse Verification (NTP)

MEP was able to verify that seven out of eight commodities were delivered intact to the NTP warehouse in Islamabad. A small discrepancy of 7 percent was observed in the number of glass slides in the distribution plan provided by DELIVER and the number of glass slides received at the NTP warehouse.² For better distribution purposes, NTP requested and received packages of 50 slides per box for easier distribution; this differed from the original plan of 72 slides per box. The plan calls for the distribution of 1,200,024 glass slides, while according to official documentation provided by the NTP warehouse, 1,111,650 units were delivered, a variance of 88,374 units.

The MEP monitoring team also noted that although the size of bottles for two reagents found in the warehouse was different than what was listed in the distribution plan, the total volume was the same. Instead of the shipment of 2,400 bottles of ethanol (2,500 ml) and 13 bottles of HCL (2,500 ml), 6,000 bottles of ethanol (2,500 ml) and 35 bottles of HCL (1,000 ml) were delivered to the NTP warehouse. Table 4 below presents the items listed in the distribution plan and the actual quantity of commodities received at the NTP warehouse.

² On September 26, 2013, the COP of the DELIVER Project sent MEP an email stating that the NTP received 1,201,300 glass slides. Included in that email were JSI's shipment report and an exemption letter. Neither, MEP believes, is sufficient documentation to change what was verified by field monitors and is supported by photographic evidence of records.

TABLE 4: COMMODITY QUANTITIES VERIFIED AT THE NTP WAREHOUSE

Commodities/Units	Distribution Plan/ Commodity Procurement Information Request (CPIR) provided by DELIVER	Actual Received at NTP	Variance		Notes
			Number	Percent	
Number of LED Microscopes	220	220	—		
Number of Glass slides	1,200,024	1,111,650	88,374	-7%	
Number of Sputum Cups	1,200,000	1,200,000	—		
Auramin (No. of bottles)	59	59	—		
Ethanol (No. of bottles)	2,400	6,000	—		Containers were changed; total volume delivered was the same.
Hydrochloric Acid (No. of bottles)	13	35	—		Containers were changed; total volume delivered was the same.
Phenol (No. of bottles)	209	209	—		
Methylene Blue (No. of bottles)	181	181	—		

As stated in the table above, approximately 93 percent of the glass slides intended for the NTP warehouse was received. The store managers at the NTP warehouse informed the MEP monitoring team that they had made the National TB Control Program aware of the difference.

As per the initial documentation provided by DELIVER, ethanol was to be provided in the form of 2,500 ml bottles. At the time of procurement, the size of the bottles was changed to 1,000 ml. each. So instead of 2,400 bottles, 6,000 bottles were delivered to the NTP warehouse; this did not change the total volume of liquid procured. A similar change occurred in the acquisition of HCL. Thirteen bottles of 2,500 ml were replaced with 35 bottles of 1,000 ml each. The total volume delivered was approximately 35,000 ml, which is approximately 3,000 ml higher than what was in the distribution plan. The reasons for these changes are not known to MEP.

The MEP monitoring team verified the amount of items distributed by the NTP warehouse to the provincial and regional hubs by comparing the goods received notes and goods delivery notes. The exact amounts that entered the NTP warehouse were the same as those that were delivered. Details of verification of distributed goods are presented in Table 5 below.

TABLE 6: DETAILED DATA ON VERIFICATION OF ITEMS AT THE PROVINCIAL AND REGIONAL WAREHOUSES

Commodities/Units	Punjab			Sindh		
	Total Received	Total Verified	Difference	Total Received	Total Verified	Difference
Number of LED Microscopes	80	80	-	40	40	-
Number of Glass slides	384,000	384,000	-	144,000	144,000	-
Number of Sputum Cups	384,000	384,000	-	144,000	144,000	-
Auramin (No of bottles)	19	19	-	7	7	-
Ethanol (No of bottles)	1,920	1,085	835	720	720	-
Hydrochloric Acid (No of bottles)	10	10	-	2	2	-
Phenol (No of bottles)	67	67	-	25	25	-
Methylene Blue (No of bottles)	58	58	-	22	22	-
Commodities/Units	Gilgit			AJK		
	Total Received	Total Verified	Difference	Total Received	Total Verified	Difference
Number of LED Microscopes	15	6	9	15	15	-
Number of Glass slides	48,000	57,600	+ 9,600	50,150	50,150	-
Number of Sputum Cups	48,000	40,000	8,000	72,000	72,000	-
Auramin (No of bottles)	2	2	-	4	4	-
Ethanol (No of bottles)	240	256	+ 16	360	360	-
Hydrochloric Acid (No of bottles)	2	2	-	2	2	-
Phenol (No of bottles)	8	8	-	13	13	-
Methylene Blue (No of bottles)	7	7	-	10	10	-

Commodities/Units	Balochistan			KPK		
	Total Received	Total Verified	Difference	Total Received	Total Verified	Difference
Number of LED Microscopes	15	15	-	60	Not Verified	NA
Number of Glass slides	48,000	135,900	+87,900	437,500	Not Verified	NA
Number of Sputum Cups	48,000	30,900	17,100	504,000	Not Verified	NA
Auramin (No of bottles)	2	2	-	25	Not Verified	NA
Ethanol (No of bottles)	240	240	-	2,520	Not Verified	NA
Hydrochloric Acid (No of bottles)	2	2	-	12	Not Verified	NA
Phenol (No of bottles)	8	8	-	88	Not Verified	NA
Methylene Blue (No of bottles)	7	7	-	76	Not Verified	NA

In Punjab, more than 99 percent of the commodities were verified. The only discrepancy observed was in the case of Ethanol bottles. Eight hundred thirty-five (835) Ethanol bottles out of 1,920 received could not be verified.

In Gilgit-Baltistan, the total quantity verified was more than what was delivered at its regional warehouse. An extra 9,600 glass slides and 16 ethanol bottles were observed. One possible reason for the excess commodities is because the region had also received commodities from sources other than USAID. Since items were not branded with the USAID logo, it was difficult to distinguish between DELIVER commodities and those supplied by other donors. Also, MEP verified around 8,000 sputum cups out of 48,000.

At Balochistan's provincial warehouse, approximately 17,100 sputum cups out of 48,000 that were received could not be verified. Approximately 87,900 glass slides were in excess. Similar to Gilgit, this large variation was because the warehouse also received commodities from sources other than USAID.

In Sindh's provincial warehouse and AJK regional warehouse, 100 percent of the commodities were verified.

At the provincial warehouse in KPK, however, complete verification was not possible due to poor documentation and the unavailability of the storekeeper. The main storekeeper at the KPK provincial warehouse was not present on the day of the verification visit. Since the storekeeper had the keys to the main store where the majority of the equipment and reagents were kept, a comprehensive monitoring visit could not be conducted. In fact MEP returned one more time and was still not able to verify the commodities at this site because the storekeeper did not show up for the appointed meeting.

District Health/TB Control Program Offices

At the 16 district health/TB control program offices, documentation was reviewed and the stock was physically checked at the stores. These offices serve as storage facilities, and the final destination of TB commodities is the laboratories located in the districts. Annex 5 shows the detailed findings from the district-

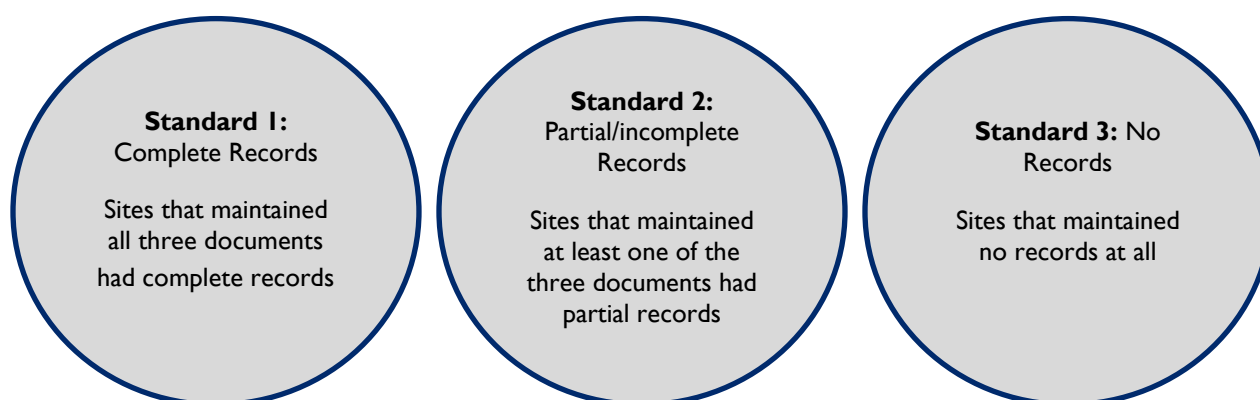
level site visits. The total amount of commodities verified was done by comparing the goods received notes, the stock register, and the equipment and commodities in the store. In the case of TB, none of the commodities had been delivered to the local laboratories for use.

For the province of Punjab, majority of the commodities for most of the district health offices were in compliance with the distribution plan, and these were verified at the sampled sites. The MEP team could not account for 5,920 sputum cups at the District Health Office in Lahore. Moreover, most of the sites visited in Punjab had maintained full documentation; however, the District Health Office Multan was the only site where commodities could not be verified, due to poor recordkeeping. In Balochistan, verification could not take place due to the absence of documentation, including the stock registers, goods receiving notes and goods delivery notes.

Recordkeeping

To verify the goods delivered through the supply chain, the monitoring team examined three sets of documents: 1) goods receiving notes; 2) stock registers; and 3) goods delivery notes. These three documents were examined at all 23 sites. Recordkeeping was evaluated based on three standards indicated below.³

FIGURE 3: STANDARDS FOR RECORDKEEPING



NTP, Provincial, and Regional Warehouses

For the NTP, provincial and regional warehouses, six out of seven sites had the three required kinds of documents available. However, in some instances entries were not complete or updated to explain the discrepancies observed in the quantities of the commodities monitored. The only site that had incomplete documents was the KPK provincial hub. In KPK, MEP monitors were only able to obtain the goods receiving note.

³ At the NTP warehouse, proof of delivery for the goods received were the packing lists and the receipts from DELIVER's freight agent, UPM.

TABLE 7: RECORDKEEPING AT NTP AND PROVINCIAL WAREHOUSES

NTP Warehouse, Provincial, and Regional Warehouses	Complete Documentation	Partial / Incomplete Documentation	No Documentation
NTP	✓		
Punjab	✓		
Sindh	✓		
Balochistan	✓		
Gilgit-Baltistan	✓		
AJK	✓		
KPK		✓	

District Health Offices/TB Control Program Offices

The process for verification at the district health offices and TB Control Program offices was the same as it is at the NTP and the regional and provincial warehouses. The monitoring team examined the goods receiving notes, the stock registers, and the goods delivery notes. In Balochistan, the district TB Control Program offices were more disorganized in terms of recordkeeping compared to districts in other provinces. The Balochistan districts of Qillah Saifullah, Qillah, Abdullah, and the Bolan Medical Complex in Quetta had no records at all. Punjab fared better with eight out of 10 districts having complete records. The only district that had no records in Punjab was Multan. Table 8 below provides the details.

TABLE 8: RECORDKEEPING AT THE DISTRICT HEALTH/TB CONTROL PROGRAMS⁴

District Health/TB Program Control Offices	Complete Documentation	Partial / Incomplete Documentation	No Documentation
Punjab			
Lahore	✓		
Multan			✓
Vehari		✓	
Sahiwal	✓		
Bahawalpur	✓		
DG Khan	✓		
Jhang	✓		
Rawalpindi	✓		
Toba Tek Singh	✓		
Okara	✓		
AJK			
Bhimber	✓		
Balochistan			
Pishin	✓		
Qillah Saifullah			✓
Qillah Abdullah			✓
Sibi	✓		
BMC			✓

Branding of the Commodities

As per the agreement with USAID, tertiary packaging (packaging that is used for bulk storage at the warehouse) of commodities purchased with USAID funds must be branded with the USAID logo; however, branding/direct tagging of individual items and commodities is not required. Branding in the form of the USAID logo was present only at the NTP warehouse in Islamabad and the AJK regional warehouse (located in Islamabad). Tables 9 and 10 below summarize the MEP monitoring team's findings on branding of the commodities at the provincial and regional warehouses and the district health/TB Control Program offices.

⁴ Districts in Sindh and KPK were not visited – in Sindh commodities were not distributed at the district level. The case was the same for KPK, where commodities were in the process of being distributed at the district level.

TABLE 9: BRANDING OBSERVED ON PACKAGING AT NTP, PROVINCIAL/REGIONAL WAREHOUSES

NTP Warehouse, Provincial and Regional Warehouses	Branding on Bulk Storage Package
NTP	Yes
Punjab	No
Sindh	No
Balochistan	No
AJK	Yes
Gilgit	No
KPK	No

TABLE 10: BRANDING OBSERVED ON PACKAGING AT DISTRICT HEALTH OFFICES/TB CONTROL PROGRAM OFFICES

District Health Offices/District TB Control Programs	Branding on Package
Punjab	
Lahore	No
Multan	No
Vehari	No
Sahiwal	No
Bahawalpur	No
DG Khan	No
Jhang	No
Pindi	No
Toba Tek Singh	No
Okara	No
Balochistan	
Pishin	No
Qillah Saifullah	No
Qillah Abdullah	No
Sibi	No
BMC	No
AJK	
Bhimber	No

Condition of the Commodities

The condition of all the commodities that MEP monitors were able to physically verify was excellent. Respondents interviewed attested that the commodities were received in excellent condition. the condition of the DELIVER-procured commodities was better than commodities procured elsewhere.

Photos of the commodities can be found in Annex 4.



Sputum Cups

Lack of Staff Training in the Use of LED Microscopes

As stated earlier in this report, a total of eight TB commodities (equipment and reagents) arrived in Pakistan last year. These eight commodities included LED microscopes, glass slides, sputum cups, Auramin, Ethanol, Methylene Blue, HCL, and Phenol. While the monitoring team was setting up appointments for the field visits, it learned that the district staff was awaiting training from the GAFTM on the use of the LED microscope. Due to this constraint, the TB equipment and commodities were not distributed from the provincial warehouse in Sindh and Balochistan to the district level. Moreover, partial distribution occurred in Gilgit-Baltistan.

In the other provinces and regions where the commodities have been delivered to the districts, they are not operational due to lack of training in the use of the LED microscopes. As a result, five other items that are used in conjunction with the LED microscopes also were not being used - Auramin, Ethanol, HCL, Phenol, and Methylene Blue.

CONCLUSIONS

- All of the commodities were received at the NTP warehouse according to the DELIVER distribution plan, with the exception of glass slides. A comparison of the distribution plan and items received indicates that 93 percent of the glass slides were received.
- There was no discrepancy in the verification of the TB commodities at the NTP warehouse in Islamabad. However, there were a few discrepancies found by the MEP monitoring team at the provincial, regional, and district hubs.
- The required documentation and records were well maintained and better organized at the NTP warehouse and the provincial and regional warehouses compared to the records kept at the district health offices/TB Control Program offices.
- USAID branding is required on tertiary/bulk storage packaging. USAID branding compliance was followed at the NTP warehouse in Islamabad and at the AJK provincial warehouse (located in Islamabad).
- At the time of the monitoring assignment, training of the district staff in the use of LED microscopes had not been conducted by the National TB Control Program; therefore the microscopes, and all of the items used in conjunction with the microscopes, could not be utilized.

RECOMMENDATIONS

- USAID/Pakistan may consider facilitating GOP-sponsored trainings on the use of LED microscopes so that district-level laboratories can use the microscopes and all the commodities associated with their use.
- USAID/Pakistan may encourage the GOP to put an internal monitoring mechanism in place to track and document the supply chain of donor-procured commodities, thereby ensuring complete transparency.
- The USAID logo should be placed on the tertiary/bulk packaging of all the TB commodities to comply with branding requirements.

LESSONS LEARNED FOR MONITORING

The verification process underscored the importance of documenting the distribution of commodities at every point along the supply chain to ensure proper delivery, receipt, and storage of commodities. Reconnaissance was important for the MEP monitoring team to develop an understanding of the realities on the ground, and in particular, the commodity distribution process. Additional research and reconnaissance also yielded crucial information relevant to the development of monitoring instruments and data required, which was integral to developing the questionnaire, observation checklist, and the interview guide that captured the various issues related to the delivery and receipt of TB commodities.

ANNEXES

Annex I: List of Persons Interviewed

Sites	Dates	Staff Met
Central Warehouse (NTP) Islamabad	24 June, 2013	Stock Officer
Provincial Hub Lahore	22 April, 2013	Manager of the TB Control Program and Stock Officer
Provincial Hub Sindh	15 April, 2013	Provincial Store in Charge and Logistics Officer
Provincial Hub KPK	18 April, 2013	TB Technical Expert, Administrative Officer, and Microbiologist
Provincial AJK	24 June, 2013	Store Officer
Provincial Hub Gilgit	3 May, 2013	Manager of the Provincial TB Control Program, Laboratory in Charge, Field Officer, and Store Keeper
Provincial Hub Balochistan	11 June, 2013	Laboratory Technologist, Logistician, and Pharmacist
Lahore	22 April, 2013	District TB Coordinator and Store Officer
Bahawalpur	26 April, 2013	District TB Coordinator and Store keeper
Vehari	6 May, 2013	District Laboratory Supervisor and Store keeper
DG Khan	24 April, 2013	District TB Coordinator, District Laboratory Supervisor, and Store Keeper
Multan	24 March, 2013	District Laboratory Supervisor and Store Keeper
Sahiwal	23 April, 2013	District TB Coordinator and Store Keeper
Toba Tek Singh	29 May, 2013	District Laboratory Supervisor and Store keeper
Jhang	29 May, 2013	District TB Coordinator and District Laboratory Supervisor
Okara	23 April, 2013	Chief Technician
Rawal Pindi	20 May, 2013	Store Keeper
Bhimber	22 May, 2013	TB Technician
Qillah Saifullah	14 June, 2013	Laboratory Technician and Laboratory Assistant
Qillah Abdullah	13 June, 2013	Laboratory Assistant
Sibi	15 June, 2013	Lady Health Visitor
Pishin	12 June, 2013	Store Keeper and Laboratory Assistant
Bolan Medical Complex	11 June, 2013	Laboratory Assistant and Field Officer

Annex 2: Instrument

National Tuberculosis Control Program of Pakistan

Commodity Verification

(Verification Methods: Interview, stock check & stock records check)

[Please carry with you all the documentation that MEP has received with regards to TB Control Program equipment form DELIVER; for example goods delivery notes, Shipment documents, Courier receipts etc.]

Name of the Interviewer		Date:	
Site Address		Time Start	
Province		Time Finished	
District		Site Type (Store/SDP)	
Site Name			
Site Address			

[Upon reaching the site, contact office in-charge or his/ her designee]

Staff at the site that participated during the verification process		
Name	Designation/ Contact	Type of participation during the verification process (Interview/physical verification/ record keeping)
1.		
2.		
3.		

Introduction (read verbatim):Assalam-o-Alaikum, My name is..... ; and we are from the USAID Monitoring and Evaluation Program; we are helping USAID in understanding the effectiveness of their projects in Pakistan. I am contacting you with reference to the notification letter sent to the Director General's Health Services, by the USAID funded DELIVER PROJECT dated 8th February 2013. The objective of my visit is to verify that the USAID funded National Tuberculosis (TB) Equipment and Reagents has been received. For this purpose, on behalf of your institution/office, I will need to ask you few questions, review the relevant record maintained at your office and visit the store to physically verify the commodities, if available. The findings of my visit will be shared with USAID to bring improvements to the supply chain of DELIVER procured commodities in Pakistan. Your assistance would be very much appreciated. May we proceed now? *[If yes, please proceed with the following questions.]*

Note for the Enumerators

For stores Q1 to Q14 are relevant; follow the instructions/ skipping pattern

For SDPs all questions are relevant, follow the instructions/ skipping pattern

1- Did you receive/collect TB Equipment/Reagents procured by USAID DELIVER PROJECT?

☐ Yes

☐ No *[If No, discontinue the interview]*

☐ I don't know *[Inquire at least one other relevant staff who could possibly be aware of receipt of USAID DELIVER equipment and ask the same question again; otherwise discontinue the interview]*

2- From which (Office/Store) did you receive/collect TB Equipment/Reagents procured by USAID DELIVER PROJECT? *[Only names of the offices/stores along with their location is requested here]*

- 3- Please name the Equipment/Reagents received through USAID DELIVER PROJECT?*[Name each item one by one to get response for each commodity; fill out the table below and note down any additional comments below in the comments field]*

Table Q3 – Equipment received

SN	Equipment /Reagents	Mark ✓ if received or Mark ✗ if not received
1	LED Microscopes	
2	Glass Slides packets	
3	Sputum cup	
4	Auramin 100 grams	
5	Ethanol 1,000 MI	
6	Hydrochloric Acid 1,000 MI	
7	Phenol 1,000 Grams	
8	Methyl Blue 100 Grams	
Additional Information		

Note: From this point onwards, only selected commodities, as indicated under Table Q3, should be referred to when asking questions, making observations and reviewing records

- 4- How would you rate the overall quality of each USAID DELIVER commodity at the time of receipt? Please consider “poor”, “fair”, “good” and “excellent” as four parameters of condition. *[Name each item received (as indicated under Q2) to get rating for each commodity; ignore items that were not received; fill out the table below and note down any additional comments below in the comment field]*

Table Q4 – Overall condition of equipment on receipt

SN	Equipment /Reagents	Rate the condition of equipment (Mark ✓ in the relevant cell)		
		Poor	Fair	Excellent
1	LED Microscopes			
2	Glass Slides packets			
3	Sputum cup			
4	Auramin 100 grams			
5	Ethanol 1,000 MI			
6	Hydrochloric Acid 1,000 MI			
7	Phenol 1,000 Grams			
8	Methyl Blue 100 Grams			
Comments on the overall condition				

- 5- Was/Is each USAID DELIVER equipment package and items marked with the USAID logo when received?*[Name each item (as indicated under Q2) to get response for each commodity; ignore items that were not received; fill out the table below and note down any additional comments below in the comment field]*

Table Q5 – Overall branding of equipment on receipt

SN	Equipment /Reagents	USAID Logo (Mark ✓ / ✗ / ? in the relevant cell)	
		Package	Items within package
1	LED Microscopes		
2	Glass Slides packets		
3	Sputum cup		
4	Auramin 100 grams		

SN	Equipment /Reagents	USAID Logo (Mark ✓/✗ / ? in the relevant cell)	
		Package	Items within package
5	Ethanol 1,000 MI		
6	Hydrochloric Acid 1,000 MI		
7	Phenol 1,000 Grams		
8	Methyl Blue 100 Grams		
Comments on the branding			

6- Were/Are DELIVER specific TB Control Equipment/Reagents/stock identifiable in the stock record?

☐ Yes, All commodities

☐ Yes but not all commodities *[request response by each equipment and fill out the table below]*

☐ No *[If No, skip questions 7 and 8]*


Table (Q6) – Tracking of DELIVER Equipment


SN	Equipment /Reagents	Mark ✓ / ✗ as applicable
1	LED Microscopes	
2	Glass Slides packets	
3	Sputum cup	
4	Auramin 100 grams	
5	Ethanol 1,000 MI	
6	Hydrochloric Acid 1,000 MI	
7	Phenol 1,000 Grams	
8	Methyl Blue 100 Grams	
Comments		

SN	Equipment /Reagents	Mark ✓ / ✗ as applicable

[For items where response is ✗ , move to Q10; for the rest of items move to the next question]

7- Did you receive/collect TB Control equipment procured by USAIDDELIVER PROJECT in more than one instalment? I would need to see relevant receipts in support of your answer.


☐ **Yes** *[If Yes,(i) ask instalment dates and quantity for each equipment from “Goods Receive Note/Letter” and add in the table below (ii) Take pictures of all relevant equipment delivery and/or receipt notes]* 

☐ **No** *[If No, (i) ask the date of receipt and quantity for each equipment from “Goods Receive Note/Letter” and indicate this under “1st Instalment Date “column(ii)Take pictures of all relevant equipment delivery and/or receipt notes]* 

Table(Q-7) – Goods Received Record

#	Equipment /Reagents	1 st Inst.		2 nd Inst.		3 rd Inst.		4 th Inst.	
		Date	QTY	Date	QTY	Date	QTY	Date	QTY
		D/M/Y		D/M/Y		D/M/Y		D/M/Y	
1	LED Microscopes								
2	Glass Slides packets								
3	Sputum cup								
4	Auramin 100 grams								
5	Ethanol 1,000 MI								
6	Hydrochloric Acid 1,000 MI								
7	Phenol 1,000 Grams								
8	Methyl Blue 100 Grams								

8- Did you register these commodities in your Stock Register / Stock Database?


☐ **Yes** *[If yes, (i) request to look at the stock register / stock database and note date of stock-in and quantity in the table below (ii) Take pictures of all relevant equipment delivery and/or receipt notes]* 

☐ **No** *[If no, skip Table Q8]*

Table (Q-8) – Stock-in Record

#	Equipment /Reagents	1 st Entry		2 nd Entry		3 rd Entry		4 th Entry	
		Date	QTY	Date	QTY	Date	QTY	Date	QTY
		D/M/Y		D/M/Y		D/M/Y		D/M/Y	
1	LED Microscopes								
2	Glass Slides packets								
3	Sputum cup								
4	Auramin 100 grams								
5	Ethanol 1,000 MI								
6	Hydrochloric Acid 1,000 MI								
7	Phenol 1,000 Grams								
8	Methyl Blue 100 Grams								

9- Is your office/site expected to send/transfer any of the TB Control Program equipment procured by USAID DELIVER PROJECT to the next level?


☐ **Yes** *[If yes, ask for all the recipient names as per actual distribution or distribution plan; take picture of the distribution list/plan]* 


USAID DELIVER TB Control Program Equipment/Reagents/Chemicals recipients

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☐ **No** *[If No, skip Q10&Q12]*

10- Have you delivered all USAID DELIVER equipment to the next level?(Not for SDP)

☐ **All of the Equipment** [(i) request to look at the “Goods Delivery Note (with recipient signature/seal or separate equipment receipt letter from recipient)” and “Stock Register/ Stock Database” and fill out the table below. (ii)Take pictures of all relevant equipment delivery notes and stock-out register (take printout of the database reports, if applicable) [Skip Q9] 

☐ **Some of the Equipment** [(i) request to look at the “Goods Delivery Note (with recipient signature/seal or separate equipment receipt letter from recipient)” and “Stock Register/ Stock Database” and fill out the table below. (ii)Take pictures of all relevant equipment delivery and/or receipt notes and stock-out register (take printout of the database reports, if applicable) 

☐ **None**

Table (Q-10) – Stock-out Record

For each Equipment, mention Quantity, Date and indicate (Y/N) Discrepancy between Goods Delivery Note & Stock-out register, if any

Recipient Office Name		LED Microscopes	Glass Slides packets	Sputum Cup	Auramin 100 Grams	Ethanol 1,000 MI	Hydrochloric Acid 1,000 MI	Phenol 1,000 Grams	Methyl blue 100 Grams
All Recipient Offices (Aggregate)		QTY							
1	QTY								
	DTE								
	Disc(Y/N)								
2	QTY								
	DTE								

Recipient Office Name	LED Microscopes	Glass Slides packets	Sputum Cup	Auramin 100 Grams	Ethanol 1,000 ML	Hydrochloric Acid 1,000 ML	Phenol 1,000 Grams	Methyl blue 100 Grams
	Disc(Y/N)							
3	QTY							
	DTE							
	Disc(Y/N)							
4	QTY							
	DTE							
	Disc(Y/N)							
5	QTY							
	DTE							
	Disc(Y/N)							
6	QTY							
	DTE							
	Disc(Y/N)							
7	QTY							
	DTE							
	Disc(Y/N)							

Recipient Office Name		LED Microscopes	Glass Slides packets	Sputum Cup	Auramin 100 Grams	Ethanol 1,000 MI	Hydrochloric Acid 1,000 MI	Phenol 1,000 Grams	Methyl blue 100 Grams
8	QTY								
	DTE								
	Disc(Y/N)								
9	QTY								
	DTE								
	Disc(Y/N)								

[Add additional sheets if required]

11- Do you have DELIVER specific equipment in your store or installed at this site?


- ☐ **Yes** *[If yes, visit the store/ installation points at site and randomly observe each equipment type for branding and condition; take pictures of all observations; fill out the table below]* 
- ☐ **No** *[Skip the table below and provide reason below in the comments field] [go to Q9]*

Table (Q-12) – Equipment Store Count

SN	Equipment /Reagents	QTY	USAID Logo	USAID Logo	Rate the overall condition of			
			✓ / ✗/?(Packagin	✓ / ✗/? (Item)	equipment			
			g)			Poor	Fair	Excellent
1	LED Microscopes							
2	Glass Slides packets							
3	Sputum cup							
4	Auramin 100 grams							
5	Ethanol 1,000 MI							
6	Hydrochloric Acid 1,000 MI							
7	Phenol 1,000 Grams							
8	Methyl Blue 100 Grams							
Comments on the overall branding and condition								

12- How would you rate the overall quality of USAID DELIVER Equipment at the time of its delivery to the commodity recipients? *[Name each item one by one to get rating for each commodity; fill out the table below and note down any additional comments below in the comment field]*

Table (Q-13) – Condition of Equipment - Delivery

SN	Equipment /Reagents	Rate the condition of equipment (Mark ✓ in the relevant cell)		
		Poor	Fair	Excellent
1	LED Microscopes			
2	Glass Slides packets			
3	Sputum cup			
4	Auramin 100 grams			
5	Ethanol 1,000 MI			
6	Hydrochloric Acid 1,000 MI			
7	Phenol 1,000 Grams			
8	Methyl Blue 100 Grams			
Comments on the overall branding and condition				

13- Did you receive TB Control Equipment Chemical/Reagents as per the demand?

SN	Equipment /Reagents	(Mark ✓ in the relevant cell)			
		Less than Requirement	More than Requirement	As per Requirement	No Requirement
1	LED Microscopes				
2	Glass Slides packets				
3	Sputum cup				
4	Auramin 100 grams				
5	Ethanol 1,000 MI				

		(Mark ✓ in the relevant cell)			
SN	Equipment /Reagents	Less than Requirement	More than Requirement	As per Requirement	No Requirement
6	Hydrochloric Acid 1,000 MI				
7	Phenol 1,000 Grams				
8	Methyl Blue 100 Grams				
Comments					

14- Do you have any specific comments to improve the TB Control Equipment Chemical/Reagents delivery and receipt process?

Comments

Note: The following section applies to Service Delivery Points Only

Service Delivery Points Only

15- Have you started using equipment procured by USAID DELIVER PROJECT?



- ☐ Yes, all of the equipment *[Observe that all equipment provided is installed/ put to use and fill out table Q15; take pictures, skip Q16]* 
- ☐ Yes, some of the equipment *[Ask names of the equipment, observe that the equipment provided is installed/ put to use and fill out table Q15; take pictures]* 
- ☐ No

Table Q15 – Equipment Usage

SN	Equipment /Reagents	In Use (✓ / ✕) (As per the interviewee response)	In Use (✓ / ✕) (As per the enumerators observation)	Enumerator to provide the basis for item wise status based on observation <i>[This is mandatory for each item]</i>
1	LED Microscopes			
2	Glass Slides packets			
3	Sputum cup			
4	Auramin 100 grams			
5	Ethanol 1,000 MI			
6	Hydrochloric Acid 1,000 MI			
7	Phenol 1,000 Grams			
8	Methyl Blue 100 Grams			

16- Why is the TB Control equipment provided by USAID DELIVER PROJECT is not being used?*[Provide reason for each item based on interviewee response]*

Table Q16 – Equipment Not In Use

SN	Equipment /Reagents	Reason as informed by interviewee <i>[This is mandatory for each item]</i>
1	LED Microscopes	
2	Glass Slides packets	
3	Sputum cup	
4	Auramin 100 grams	
5	Ethanol 1,000 MI	
6	Hydrochloric Acid 1,000 MI	
7	Phenol 1,000 Grams	
8	Methyl Blue 100 Grams	

17- Are you facing any issues in the usage of the equipment?

- ☐ **Yes** *[If yes, please fill in the table and get response for each commodity]*
- ☐ **No** *[If no, please ignore the table]*

Table Q17 – Equipment Use Issues

SN	Equipment /Reagents	Reason as informed by interviewee <i>[This is mandatory for each item]</i>
1	LED Microscopes	
2	Glass Slides packets	
3	Sputum cup	

SN	Equipment /Reagents	Reason as informed by interviewee <i>[This is mandatory for each item]</i>
4	Auramin 100 grams	
5	Ethanol 1,000 MI	
6	Hydrochloric Acid 1,000 MI	
7	Phenol 1,000 Grams	
8	Methyl Blue 100 Grams	

Annex 3: Task Order Plan

USAID/Pakistan Monitoring and Evaluation Program

Task Order Plan (TOP) #40

Monitoring Commodity Support: National Tuberculosis (TB) Control Program of Pakistan

- I. **USAID TOP Manager:** John Eyres, Deputy Director, Health Office
- II. **MSI TOP Manager:** Director of Monitoring, MEP
Team Leader, MEP
- III. **USAID/Pakistan Unit:** Health Office
- IV. **Start and End Dates:** February 1, 2013 - August 15, 2013
- V. **Purpose**

USAID has requested MSI to verify that USAID-funded medicines and commodities have reached the provincial, regional and district hubs from the central warehouse in Islamabad according to the agreed arrangements.

VI. **Background**

The USAID-funded Health Supplies Distribution Project known as USAID | DELIVER PROJECT started in August 2009. The project focuses on improving and enhancing Government of Pakistan's in-country distribution and health commodity supply chains. Implemented by John Snow, Inc., this project aims to help the Planning Commission of Pakistan, Provincial and Regional Departments of Health and non-government organizations etc. to determine the correct amount of health commodities to order each year, establish a modern storage and tracking system, and improve the distribution system throughout the country. It also aims to ensure multi-level coordination on the delivery of health commodities.

Under the DELIVER project, tuberculosis (TB) commodities (equipment and related chemicals) are being supplied to the National TB Control Programs as a one-time procurement by the DELIVER project. A review of DELIVER documents suggests that due to a global surge in demand for first and second line TB commodities, clients are facing some shipment delays. Overall, the project's interventions regarding TB focus on two key objectives: 1) improving the performance of the health system by redressing weak supply management systems and 2) improving the availability of drugs, laboratory supplies and chemicals in the public sector. These are being achieved by working in partnership with the relevant government departments to eradicate TB through an improved logistics management information system (LMIS), warehouse rehabilitation, commodity security, and procurement capacity and other related support

activities. MSI will verify that USAID-funded medicines and commodities have reached the provincial, regional and district hubs from the central warehouse in Islamabad according to the agreed arrangements.

Upon further investigation with JSI, there is a delay in shipment of some of the drugs and commodities related to TB. As a result, revisions have been incorporated into this new version of the task order plan (TOP). MSI will now conduct verification on 8 of the original 21 commodities. The 8 commodities are marked as items 14 to 21 in Annex II. Because some of the Items 1 to 13 are of Indian manufacture and are subject to a waiver and a No Objection Certificate (NOC), which can only be granted by the Prime Minister of Pakistan, as such, there is no estimated timeline for approval of shipment to Pakistan at this time. Therefore, MSI will design its monitoring activities based on the eight commodities that have reached Pakistan and have subsequently been distributed to the regional hubs and districts. The last destination for the eight commodities is at the district level hospital and EQA laboratories.

The hubs are: Lahore; Hyderabad; Peshawar; Quetta; Gilgit-Baltistan and Muzzafarabad. FATA has not been included in the DELIVER TB Program.

This TOP covers only the consignment that has arrived in Pakistan. MSI will visit the central warehouse in Islamabad and the six regional hubs, which serve all of Pakistan. As agreed with USAID, MSI will visit 75 percent of districts in Sindh that have received the commodities and 25 percent of the districts in the remaining six provinces. As of today, all hubs have received their allocated share of the eight commodities. The district level sites to be visited are as follows:

Provincial Hubs	Districts	Total district level sites (1 site per district)
Sindh (Hyderabad)	16 (out of 22)	44
Punjab (Lahore)	10 (out of 38)	
KPK (Peshawar)	6 (out of 25)	
Balochistan (Quetta)	7 (out of 30)	
Azad Jammu and Kashmir (AJK) (Muzzafarabad)	3 (out of 10)	
Gilgit – Baltistan (Gilgit)	2(out of 7)	

The table below provides a summary of the total sites we are going to visit.

Central Warehouse Islamabad	Provincial Hubs	District Level Sites	Total Sites Visited
I	6	Sindh:75% All Others: 25% 44	51

MSI staff will conduct the site visits in all regions. They will examine stock registers and physically verify whether the corresponding commodities are present at the site. The verification instrument is designed to capture all the necessary information required for the verification.

The provincial hubs for Punjab, KPK, Azad Jammu Kashmir, Gilgit Baltistan have distributed the equipment, and chemicals/reagents to the districts. The distribution process in these provinces and regions has varied in terms of methods and timing. For example, KPK only recently distributed the

equipment and commodities as of April 26, 2013. The chemicals/reagents are in storage since the technicians in these areas have not been trained in the use of the fluorescent LED microscope. Sindh, on the other hand, has stored all of the equipment and commodities at the provincial level with plans to distribute the items to the districts once the technicians in Sindh are trained. This is not likely to happen before mid-June. It should be noted that training is not under the purview of DELIVER and responsibility rests with the Global Fund.

Since Sindh is a major focus of the verification assignment, the task order is being amended.

The tasks involved include:

- Meet with DELIVER team and USAID to discuss the monitoring plan/visits and obtain letters of introduction for the central and regional hubs along with contact information for monitoring visits.
- Develop notification procedure for contacting National TB Control Program and other recipient centers about the monitoring visits.
- Conduct reconnaissance visits to the central warehouse, one hub and one district hospital.
- Obtain equipment/chemicals distribution schedules from DELIVER team for delivery points.
- Design monitoring instruments (verification checklists and interview questions with guidelines).
- Develop data collection plan
- Pre-test survey instruments
- Share instruments with USAID
- Finalize instruments and deploy field teams for data collection.
- Develop tabulation plan
- Data entry and cleaning
- Findings Debrief with USAID
- Analysis and report writing

VII. Schedule

Task	Dates	Revised dates
Preparation, document review and reconnaissance visits	February 15 – March 1, 2013	February 15 – March 1, 2013
Drafting of instruments	February 25 – March 8, 2013	February 25 – March 8, 2013
Pre-test of instrument	March 14-22, 2013	March 14-22, 2013
Sharing of Instruments	March 22, 2013	March 22, 2013
Finalize Instruments	March 26, 2013	March 26, 2013
Data collection, cleaning and entry	April 1 – May 15, 2013	April 18 – June 30
Mid-term Debrief with USAID	April 17, 2013	May 14, 2013
Findings Analysis and report writing	May 15 – 31, 2013	June 30 –July 15, 2013
Debrief with USAID	May 14, 2013	July 1, 2013
Submission of draft verification report to USAID	May 31, 2013	July 15, 2013
Comments received from USAID (2 weeks)	June 14, 2013	August 1, 2013
Submission of final verification report to USAID (2 weeks)	June 28, 2013	August 15, 2013

VII. Deliverables

- Midterm debrief with USAID
- Findings debrief with USAID
- Draft Verification Report
- Verification Report

VIII. International Travel Information (On or About)

N/A

IX. Staffing

Staff for this task order plan will consist of MEP monitoring staff.

X. Anticipated Level of Effort

Name of Person	Prep-Meetings	Prep-Travel	Prep-Site Visit	Travel	Instruments	Field-Testing	Code book	Training	Travel - Monitoring Visits	Monitoring Visits	Database	Data Entry	Report Writing	Mgt	TOTAL
Senior Advisor for Monitoring	1												2	1	4
Director of Monitoring	2	2	2	1	1		1							3	12
MEP Staff Team Leader ⁵	2		3		1	3	2		14	7	1	4	5	6	68
MEP Staff (Sindh) ⁶								1	20	6			3		45
MEP Staff ⁷								1	12	3	4		3		28

Note: Travel is based on estimation.

XI. IMEC Partner Implementing the TOP

Management Systems International

XII. Attached Reference Documents

- Annex I: Provincial Consignees
- Annex II: Distribution Schedule

⁵ Will cover KPK and Punjab

⁶ Will cover Balochistan

⁷ Will cover AJK and Gilgit-Baltistan

XIII. Authorizations

The undersigned hereby authorize the following items checked below for the Task Order Plan (TOP) described above (Cross out the items that do not apply):

Completion of the TOP, as described above;

TOP staffing, as described above.

[COR to either sign below or indicate “approve” on a return email]

Contracting Officer’s Representative (COR)
Sherry Ward, or designate

Date

Distribution Plan of USAID Commodity Support "Tuberculosis Control Program"

Serial #	Item	Quantity						Total Quantity	Estimated Arrival Time
		Punjab	Sindh	KPK	Baluchistan	AJK	Gilgit Baltistan		
1	HRZE Tablets	7,110,000	384,660	932,040	127,800	742,842	37,421	9,334,763	Shipping Documents arrived and we are coordinating with DRA & MOC for issuance of NOC to import these drugs.
2	HR Tablets	16,800,000	912,000	2,160,000	312,000	176,842	88,421	20,449,263	
3	HRE Tablets	1,350,000	71,100	203,400	18,000	14,211	7,105	1,663,816	
4	Streptomucine Inj.	180,000	9,480	27,120	2,400	1,895	947	221,842	
5	Inj Capreomycine (1g)	36,000	24,000	24,000	12,000	0	0	96,000	
6	Inj amikacin (500mg)	72,000	48,000	48,000	24,000	0	0	192,000	
7	Tab Cycloserin (250mg cap)	438,000	292,000	292,000	146,000	0	0	1,168,000	
8	Tab Elionamide (250mg tab)	438,000	292,000	292,000	146,000	0	0	1,168,000	
9	Tab Levofloxacin (250mg)	219,000	146,000	146,000	73,000	0	0	584,000	
10	Tab Levofloxacin (500 mg)	109,500	73,000	73,000	36,500	0	0	292,000	
11	PAS (100g pack, Jacobus PASER)	1,440	960	960	480	0	0	3,840	
12	Tab PZA (400mg)	547,500	365,000	365,000	182,500	0	0	1,460,000	
13	Tab Vitamic B 6(50mg)	438,000	292,000	2	146,000	0	0	876,002	
14	Microscopes	80	40	60	15	15	10	22	Distributed to all Provinces & Regions
Serial #	Item	Quantity						Indicative Delivery Time	Estimated Arrival Time
		Punjab	Sindh	KPK	Baluchistan	AJK	Gilgit Baltistan		
15	Auramin pack of 100g	19	7	25	2	4	2	59	Distributed to all Provinces & Regions
16	Ethanol unit of 2500 ml	768	288	1,008	96	144	96	2,400	
17	HCL unit of 2500 gm	4	1	5	1	1	1	13	
18	Phenol unit of 1000gm	67	25	88	8	13	8	209	
19	Methylene Blue Unit of 100gm (Alternative of Potassium)	58	22	76	7	11	7	181	
20	Sputum Cups unit	384,000	144,000	504,000	48,000	72,000	48,000	1,200,000	
21	Glass slides pack of 72	5,333	2,000	7,000	667	1,000	667	16,667	

Annex 4: Pictures of TB Commodities

LED Microscopes



Glass Slides



Sputum Cup



Auramin



Ethanol



Hydrochloric Acid



Phenol



Methylene Blue



Annex 5: Commodity Quantities Verified at the Districts Warehouses

Commodities/Units	Lahore			Toba Tek Singh		
	Total Received	Total Verified	Difference	Total Received	Total Verified	Difference
Number of LED Microscopes	1	1	-	1	1	-
Number of Glass slides	38,300	38,300	-	10,656	10,656	-
Number of Sputum Cups	45,290	40,000	5,290	9,000	9,000	-
Auramin (No of bottles)	1	1	-	-	-	-
Ethanol (No of bottles)	87	87	-	17	17	-
Hydrochloric Acid (No of bottles)	-	-	-	-	-	-
Phenol (No of bottles)	6	6	-	1	1	-
Methylene Blue (No of bottles)	5	5	-	1	1	-
Commodities/Units	Vehari			Sahiwal		
	Total Received	Total Verified	Difference	Total Received	Total Verified	Difference
Number of LED Microscopes	1	1	-	2	2	-
Number of Glass slides	-	-	-	7,950	7,950	-
Number of Sputum Cups	-	-	-	10,000	10,000	-
Auramin (No of bottles)	-	-	-	-	-	-
Ethanol (No of bottles)	20	20	-	18	18	-
Hydrochloric Acid (No of bottles)	-	-	-	-	-	-
Phenol (No of bottles)	1	1	-	1	1	-
Methylene Blue (No of bottles)	1	1	-	1	1	-
Commodities/Units	Jhang			DG Khan		
	Total Received	Total Verified	Difference	Total Received	Total Verified	Difference
Number of LED Microscopes	1	1	-	2	2	2
Number of Glass slides	-	-	-	-	-	-
Number of Sputum Cups	-	-	-	-	-	-

Auramin (No of bottles)	-	-	-	-	-	-
Ethanol (No of bottles)	20	20		16	16	16
Hydrochloric Acid (No of bottles)	-	-	-	-	-	-
Phenol (No of bottles)	1	1	-	1	1	1
Methylene Blue (No of bottles)	1	1	-	1	1	1
Commodities/Units	Bahawalpur			Rawalpindi		
	Total Received	Total Verified	Difference	Total Received	Total Verified	Difference
Number of LED Microscopes	2	2	-	1	1	-
Number of Glass slides	13,600	13,600	-	15,050	15,050	-
Number of Sputum Cups	16,056	16,056	-	18,000	18,000	-
Auramin (No of bottles)	1	1	-	-	-	-
Ethanol (No of bottles)	31	31	-	34	34	-
Hydrochloric Acid (No of bottles)		-	-	-	-	-
Phenol (No of bottles)	2	2	-	2	2	-
Methylene Blue (No of bottles)	2	2	-	2	2	-
Commodities/Units	Okara			Sibi		
	Total Received	Total Verified	Difference	Total Received	Total Verified	Difference
Number of LED Microscopes	1	1	-	-	-	-
Number of Glass slides	8,400	8,400	-	1,440	7,200	-
Number of Sputum Cups	9,934	9,934	-	1,000	500	-
Auramin (No of bottles)	-	-	-	-	-	-
Ethanol (No of bottles)	19	19	-	-	-	-
Hydrochloric Acid (No of bottles)	-	-	-	-	-	-
Phenol (No of bottles)	1	1	-	-	-	-

Mehthylene Blue (No of bottles)	I	I	-	-	-	-
Commodities/Units	Pishin			Qillah Abdullah		
	Total Received	Total Verified	Difference	Total Received	Total Verified	Difference
Number of LED Microscopes				Not Verified	Not Verified	NA
Number of Glass slides	2,500	2,500		Not Verified	Not Verified	NA
Number of Sputum Cups	1,500	1,500		Not Verified	Not Verified	NA
Auramin (No of bottles)				Not Verified	Not Verified	NA
Ethanol (No of bottles)				Not Verified	Not Verified	NA
Hydrochloric Acid (No of bottles)				Not Verified	Not Verified	NA
Phenol (No of bottles)				Not Verified	Not Verified	NA
Mehthylene Blue (No of bottles)				Not Verified	Not Verified	NA
Commodities/Units	Qillah Saifullah			Bolan Medical Complex		
	Total Received	Total Verified	Difference	Total Received	Total Verified	Difference
Number of LED Microscopes	Not Verified	Not Verified	-	Not Verified	Not Verified	NA
Number of Glass slides	Not Verified	Not Verified	-	Not Verified	Not Verified	NA
Number of Sputum Cups	Not Verified	Not Verified	-	Not Verified	Not Verified	NA
Auramin (No of bottles)	Not Verified	Not Verified	-	Not Verified	Not Verified	NA
Ethanol (No of bottles)	Not Verified	Not Verified	-	Not Verified	Not Verified	NA
Hydrochloric Acid (No of bottles)	Not Verified	Not Verified	-	Not Verified	Not Verified	NA
Phenol (No of bottles)	Not Verified	Not Verified	-	Not Verified	Not Verified	NA
Mehthylene Blue (No of bottles)	Not Verified	Not Verified	-	Not Verified	Not Verified	NA

Commodities/Units	Bhimber			Multan		
	Total Received	Total Verified	Difference	Total Received	Total Verified	Difference
Number of LED Microscopes	1	1	-	Not Verified	Not Verified	NA
Number of Glass slides	4,150	4,150	-	Not Verified	Not Verified	NA
Number of Sputum Cups	8,000	8,000	-	Not Verified	Not Verified	NA
Auramin (No of bottles)	-	-	-	Not Verified	Not Verified	NA
Ethanol (No of bottles)	36	36	-	Not Verified	Not Verified	NA
Hydrochloric Acid (No of bottles)	-	-	-	Not Verified	Not Verified	NA
Phenol (No of bottles)	1	1	-	Not Verified	Not Verified	NA
Methylene Blue (No of bottles)	1	1	-	Not Verified	Not Verified	NA